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ABSTRACT

As part of an investigation of effective first grade reading group instruction, teacher interviews were conducted and analyzed to determine differences between control and treatment group teachers, the relation between interview responses and adjusted student achievement, and the relation between teacher self-ratings and observed behaviors. Ten teachers were a control group, while the other 17 teachers used an instructional model consisting of 22 principles believed to promote effective instruction in small groups in the early grades. The model emphasized the management of the group as a whole and the feedback teachers gave to student answers. Although the results were not as strong as expected--few clear relationships existed between interview responses and adjusted achievement--the responses of treatment teachers were more in line with the treatment than were the control group's responses. Behaviors that had been most specifically described in the treatment model correlated with teachers' observed behaviors. (Author/RL)

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An Experimental Study of  
Reading Group Instruction:  
Data from Teacher Interviews

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## Abstract

Teachers were interviewed about the instructional model that served as the basis of the First-grade Reading Group Study. Their responses were analyzed to determine differences between control and treatment group teachers, relationships of interview responses to adjusted achievement, and the relationships between teacher self-ratings and observed behaviors. Although the results were not as strong as expected, the responses of the treatment teachers were more in line with the treatment than were the control group's responses. There were few clear relationships between interview responses and adjusted achievement. For behaviors that had been most specifically described in the treatment, the teachers' self-ratings correlated with observed behavior. Suggestions are made about monitoring teacher attitudes and awareness in future treatment studies.

This report describes interview data collected as part of the First-grade Reading Group Study, an experimental investigation of several principles of effective teaching in small groups. The most important data from this study were based on classroom observations and student test scores. Analyses describing these data, as well as detailed background of the study, may be found in Anderson, Evertson, and Brophy (1979; Note 1).

Individual interviews were conducted at the end of the year with each of 27 participating teachers in order to gather additional information to supplement the classroom observations. This report discusses the analyses of those interview data to determine:

1. Differences in responses of teachers in treatment and control groups;
2. Relationships between interview responses and teaching effectiveness (as determined by adjusted achievement scores);
3. Relationships between teachers' ratings of their behaviors and the observed behaviors.

#### BACKGROUND OF THE STUDY

The major objective of the First-grade Reading Group Study was to verify earlier research findings by experimentally testing several principles of instruction. A second objective was to determine the effectiveness of the treatment in promoting change in teacher behaviors.

The treatment was an instructional model consisting of 22 principles believed to promote effective instruction in small groups in the early grades. A brief manual describing these principles was given to 17 first-grade teachers who agreed to use the instructional model. Ten other teachers served as a control group. Ten of the treatment teachers and all of the control group were observed regularly throughout the year to obtain

information on implementation of the principles included in the model. (The other seven treatment teachers were included to assess treatment effects on achievement in the absence of observation.)

All classes were in predominantly middle-class, Anglo schools, and all the teachers in the study were female.

In October, the researchers met with teachers in the treatment schools and described the purpose of the study. The teachers who agreed to participate read the manual and met again with the experimenters to discuss it. There was no further training, and no attempts were made during the year to "boost" the treatment. During May, teachers were interviewed and asked for their opinions of the instructional model and other aspects of teaching. Also during May, the reading achievement of all students was measured and the scores were adjusted for entering readiness.

The instructional model was developed from the integration of research and knowledge about how young children function in a classroom, especially in a small group. It was presented to the teachers as a set of guidelines for teacher management of reading group instruction. The model was "curriculum free" in that it did not focus on the content or materials used in teaching reading, but only on teacher behaviors involved in managing the group as a whole or managing responses of individual students. The major rationale for the model was that each child should receive as much individual attention as possible in the group setting. A major objective of the model was to help teachers achieve an ideal balance between attention to the group and attention to individuals.

The model was composed of two parts: the first dealt with management of the group as a whole and the second emphasized the responses that teachers give in feedback to students' answers.

A summary description of each group of principles is presented here. In the material given to teachers, each principle was explained with a rationale and several examples. More details on the research supporting each principle, as well as a copy of the instructional model, may be found in a detailed report on the study (Anderson, et al, Note 1).

### Overview of the Principles

#### I. Organization and Management

##### Getting the Children's Attention

1. The teacher gets everyone's attention before starting the lesson.
2. The children sit with their backs to the rest of the class while the teacher faces the class.

##### Introducing the Lesson

3. The teacher introduces the lesson with a brief overview.
4. The teacher presents new words clearly.
5. After presenting new words, the teacher has the children repeat them.
6. A demonstration or explanation precedes the children's attempts to do the work.

##### Calling on Children

7. The teacher should work with one child at a time, so that everyone is checked and receives feedback.
8. The teacher should call on children in order rather than randomly.
9. Occasionally the teacher should question a child about another child's response (to keep everyone alert).
10. The teacher should minimize calling on volunteers.
11. The teacher should discourage call outs and should emphasize that each child is responsible for the question asked him.

12. The teacher should avoid rhetorical questions, answering her own questions, or repeating questions. These confuse the children.

### Meeting Individual Learning Needs within the Group

13. At some point, the teacher must decide if the whole group can meet the lesson's objectives. If she decides they can, she should hold the group together, making sure that everyone masters each step before moving on to the next step.

14. If the teacher decides that everyone cannot meet the objective, the students who can do so should be taught through to the end and then dismissed, so that the teacher can spend more time with the other children.

15. An exception to the above occurs when the teacher wants to use a student who has mastered the objective as a model for the others. Here, she may retain one or more such students in the group in order to carry on a dialogue.

16. If some of the children do not succeed in meeting the objectives before lesson time is up, arrangements should be made for extra tutorial help.

## II. Responding to Children's Answers

The teacher's feedback to children's answers depends on 1) the type of question (whether it requires memory or reasoning), 2) the pace of questioning (whether rapid for drill or slower for more thoughtful questions), and 3) the answer (correct, incorrect, "I don't know," or no response).

### When the Child does not Respond

17. After asking a question, the teacher waits for the child to respond and also sees that other children wait and do not call out answers. During rapid pacing, she waits a few seconds and gives the answer. During the more slowly paced parts of the lesson, the teacher should wait for an answer as

long as she feels that the child is thinking and will answer, but not so long as to embarrass the child or lose the other children's attention.

If the child does not respond within a reasonable time, the teacher should indicate that some response is expected by probing ("Do you know?"). The teacher should then simplify (see #19) according to the type of question.

#### When the Child's Answer is Incorrect

18. The teacher should indicate that the answer is wrong, and then follow simplification procedures outlined below for the two types of questions.

#### Simplification Procedures

19. The appropriate simplification procedure is determined by the type of question.

a. If the question deals with factual knowledge that cannot be reasoned out, the teacher should give the answer to the child and then move on.

b. If the question is one that the child could reason out with help, the teacher should provide clues or simplify the question. If the clues still do not help the child, he should be given the answer. The teacher should never ask another child to supply the answer.

#### When the Child is Correct

20. The teacher should acknowledge the correctness, and make sure that everyone else heard and understood the answer.

#### Praise and Criticism

21. Praise is important but should not be used indiscriminately. Praise thinking and effort more than just getting the answer, and make praise as specific and individual as possible.

22. Criticism should also be as specific as possible and should include specification of desirable or correct alternatives.



## THE TEACHER INTERVIEW

The classroom observations yielded much valuable information, but the investigators also wanted to talk with the teachers about the treatment and other aspects of teaching first-grade reading. Therefore, an interview was developed and used with all of the teachers (both treatment and control). The following sets of questions were included:

### 1. Teacher self-ratings of use of the instructional model

The 22 principles in the model were converted to 27 five-point scales. (Some of the principles could not be reduced to a single item.) Using these scales, each teacher rated frequency of use of each principle. The treatment teachers knew that the principles were based on the treatment given to them, and the control teachers were told that the items were based on some suggestions about teaching techniques.

### 2. Teacher opinions of the instructional model

After completing the ratings, the teachers reported perceived advantages and disadvantages of each principle.

### 3. Teacher strategies. Several questions were asked about aspects of first-grade reading instruction that did not directly relate to the instructional model. These questions were included in order to supplement information about the instructional model.

The interview questions are listed in Appendix A.

The interviewer wrote down each teacher's response. For those items that could not be quantified immediately, the investigators constructed a set of categories with which the responses could be scored and subsequently analyzed.

This set of categories was developed after reading all of the responses to a single question, and then listing the dimensions or present-absent

categories that distinguished teachers from one another. These categories were nominated by two independent readers whose suggestions were then merged to yield several categories to be applied to each question. Generally, each category was applied as a dichotomous (i.e., present-absent) variable: for each variable, each teacher's response was scored as "yes, the answer expresses this" or "no, the answer does not express this." For example, one interview question was, "What are the advantages or disadvantages of giving an overview before starting the lesson?" One way of classifying the teachers' answers was whether or not academic advantages were mentioned. Therefore, each teacher's response to this question was scored for mention of academic advantages. However, three other ways of classifying the responses to this question were also used: "any advantage at all was noted by the teacher"; "it aids in control of the students"; "it is not desirable or necessary." Each teacher's answer to the question about overviews was also scored for these other ways of classifying the response, yielding four variables that could be analyzed.

There were three questions addressed by analyses of the interview data. The results are reported separately:

1. Did teachers in the treatment and control groups respond differently, and, if so, to which questions?
2. What were the relationships between responses on the interview and teacher effectiveness (as determined by adjusted achievement scores)?
3. Were there relationships between teachers' ratings of their own behaviors and observation measures of that behavior?

## RESULTS

### Differences Between the Treatment and Control Groups

In order to determine if experimental group membership led to differences

in interview responses, a series of one-way analyses of variance was performed on each interview variable. Therefore, the responses of the teachers in each group were compared to teachers in the other groups: treatment-observed, treatment-unobserved, and control. When there was a significant difference detected among the three groups, paired comparisons were performed to determine where the greatest differences were found. It was expected that the control group would be most different from the two treatment groups, who were expected to be similar to one another. For those interview items that were directly related to the instructional model that was given to the treatment group, it was expected that responses of the treatment teachers would be more in line with the treatment than would be the responses of the control group. Significant results are listed in Table 1.

#### Teachers' Self-ratings of use of the Principles in the Instructional Model.

The 22 principles in the instructional model were converted to 27 five-point scales on which the teachers rated their frequency of use of the principle (5 = very often, 1 = almost never). Two of these 27 ratings were not analyzed, because there was very little variance (i.e., all of the teachers rated themselves similarly). When the 25 remaining self-ratings were compared for the three groups, only eight yielded significant results (when  $p \leq .10$ ). For only one of the eight significant group differences was there a significant paired comparison. Significant results are listed in the first part of Table 1.

Since all of the ratings were derived from the instructional model which served as the treatment, it was expected that the treatment teachers would rate their frequency of use higher than the control teachers rated their use. Therefore, the small number of significant findings, although greater than that expected by chance, was less than had been hypothesized. However, the

ratings that did reveal group differences corresponded to the results obtained when the observed teacher behaviors of the treatment and control groups were compared. That is, where there were clear differences in the behaviors of the control and treatment teachers, there were generally corresponding differences in the teachers' self ratings. This implies that the treatment teachers were not indiscriminately rating themselves high on all parts of the treatment.

For all self-rating variables (except one) where the three-group comparison was significant, none of the paired comparisons was significant. However, in each such case, the order of the means of the three groups was that hypothesized. The order of means also corresponded to what was known about observed group differences. However, differences among the groups on the ratings were not as large as the differences detected in the behavioral data.

To summarize the results, teachers in the treatment groups rated themselves higher than the control teachers for the following principles, indicating compliance with the instructional model (initial numbers are interview variable numbers corresponding to the tables):

3. Seat the students so that their backs are to the rest of the class, in order to prevent distractions (Principle 2).

5. Present an overview when beginning a lesson (Principle 3).

10. Call on students in order around the group to answer questions. (This was rated high by the observed-treatment group only; the unobserved-treatment group was very comparable to the control group on this rating.)

(Principle 8).

15. Ignore call outs, or ask students who call out to wait to respond and not to interrupt others (Principle 11).

The teachers in the treatment group rated themselves lower than did the

control teachers for the following principles, again indicating compliance with the instructional model:

12. Use volunteers for reading turns (Principle 10).

21. Ask another student for the answer after the first student has answered incorrectly during a drill (There was a significant paired comparison for this variable, with the control teachers rating themselves higher than the treatment-observed group.) (Principle 19).

24. Ask another student for the answer after the first student has answered incorrectly during a slow-paced lesson (Principle 19).

For each of these behaviors, there was a significant treatment effect when the observed behaviors were analyzed. That is, the treatment teachers really did act more in line with the instructional model than did the control teachers, and they also rated their performance accordingly.

For one principle, "Teacher repeats student's correct answer" (variable 25), control teachers rated their use higher than the treatment teachers, which is opposite to the recommendation of the treatment. However, the observational data matched the self-ratings in that control teachers did use answer repetition more, contrary to expectations.

#### Teacher's Opinions of Principles in the Instructional Model

For each of the 27 ratings, the teachers were asked to name advantages and disadvantages of the principle or part of a principle that was described. These questions were open-ended, and the interviewer noted whatever the teacher said. These answers were categorized according to the procedures described above, and they resulted in 92 variables. Of these, only 13 revealed significant group differences at  $p \leq .10$ , which represents a level only slightly greater than chance. Of these 13 significant findings, only two of the variables yielded significant paired comparisons.

Only four of the 13 significant findings could be easily related to the treatment content. That is, for these four variables, the opinions offered by the treatment teachers corresponded much more to the rationale given in the treatment materials than did the opinions offered by the control teachers. Treatment teachers said the following more often than control teachers, indicating agreement with the instructional model:

50. A standard signal for group transitions aids in class control (Principle 1).

58. An advantage of seating the group with students' backs to the rest of the class is that the group is not distracted by the class (The treatment-observed group only said this; Principle 2).

169. Students who receive specific praise are more likely to know why they are being praised (Principle 2i).

The treatment teachers said the following less often than the control teachers, indicating agreement with the instructional model:

65. It is unnecessary and undesirable to present an overview and tell students what will be covered at the beginning of the lesson (Principle 3).

There were nine other significant group differences for this section of the interview, but they were not as easily related to the content of the treatment or to group membership. Often, the control group was not clearly different from the two treatment groups, who often differed from one another. These significant variables are listed in the second section of Table 1.

#### Teachers' Descriptions of Strategies, Curriculum, and Materials

In addition to eliciting the teacher's opinions about the principles in the instructional model, several questions were asked about other strategies, curriculum, and materials. These questions were added because the investigator was curious about several other aspects of teaching first-grade

reading, and hoped that the additional information could be used in a revised, expanded instructional model.

These additional questions yielded 129 variables. Of these, 25 were significant at a level  $p < .10$ . Two of these 25 could be related to some extent to the instructional model:

207. Treatment teachers were more likely than control teachers to say that errors or inability to answer a comprehension question should be responded to by having the student reread the question with special instructions. This is comparable to giving a clue following an error (as recommended in Principles 17 - 19).

228. Treatment teachers were more likely than control teachers to say that they didn't like to ask another child for the answer following an error by the first respondent (also as discussed in Principles 17 - 19).

The other 23 significant findings did not reveal any systematic pattern that differentiated the treatment and control teachers. These variables are listed in third section of Table 1.

#### Summary of Differences between the Treatment and Control Groups

For several variables, the teachers in the treatment group responded to questions about the treatment in the expected way. When differences were detected between the treatment and control teachers' self-ratings of use of the treatment principles, there were generally corresponding differences in the observation measures. However, these differences were found only for parts of the instructional model that were very specific and well-defined. There were not many differences between the treatment teachers' and control teachers' opinions of the principles. There were no systematic patterns present for other questions about strategies and curriculum that differentiated the groups of teachers, except for two instances in which

treatment teachers were more likely to refrain from asking other students for an answer after one student had answered incorrectly. This was in line with the treatment (Principle 19). In summary, group differences in attitude and perceptions were not extreme (46 significant main effects were observed when about 25 were expected by chance), but they were very consistent with expectations based on the content of the treatment (i.e., the responses of the treatment teachers were more in line with the treatment principles than the responses of the control teachers).

#### RELATIONSHIPS OF INTERVIEW RESPONSES WITH ADJUSTED ACHIEVEMENT

In order to determine if responses to the interview were related to effectiveness (defined here as greater class mean adjusted achievement), each interview variable was compared to the Metropolitan Total Reading score by means of linear regression analyses. This series of analyses tested main effects as well as interactive relationships (in which the mean entering readiness level of the class influenced the relationship between achievement and the teacher's response). A full explanation of the regression models and the statistical comparisons may be found in Anderson et. al. (Note 1).

There were 538 F-tests computed (one test for interaction and one test for a linear relationship for each of 269 valid interview variables). Of these 538 tests, only 41 yielded results significant at a level of  $p \leq .10$ . This was slightly fewer than would be expected by chance.

Most of the results that were significant did not form a sensible pattern, and therefore are not discussed here. Table 2 lists those variables which demonstrated a significant relationship with achievement.

However, two sets of significant variables were internally consistent. First, of the 25 self-ratings completed by the teachers, six were significantly related to achievement. These corresponded either to those



relationships found when actual observed behavior was related to achievement or to specific suggestions in the instructional model.

The following self-ratings showed positive linear relationships with achievement:

3. Seat children in the reading group with their backs to the rest of the class (Principle 2).

8. Explain new activities step by step with questions at each step (Principle 6).

16. Dismiss rapid learners from the group in order to spend more time teaching the lesson's objectives to the slower learners (Principle 14).

The following variables showed negative relationships with achievement, which also indicates agreement with the instructional model:

21. In a drill, if a child doesn't answer correctly, give a clue (Principle 19).

24. In a slower lesson, when a child doesn't answer correctly, ask another student (Principle 19).

The following variable showed an interactive relationship with achievement: a positive slope for classes with higher entering readiness, but a flat relationship for classes with lower entering readiness. This interactive pattern was also present when the observational data were analyzed:

15. When call outs occur, ignore them or remind the child to wait his turn (Principle 11).

The second cluster of significant and interpretable findings described relationships between achievement and the teachers' opinions of advantages and disadvantages of the instructional model. Four variables suggested that more effective teachers saw advantages to using sustaining feedback to errors

(i.e., giving clues or asking a simpler question to the same child, rather than asking a second student for the answer). This technique was discussed in Principles 17-19. The following variables demonstrated a positive relationship with achievement:

132. A disadvantage to giving the answer during a drill is that kids don't learn how to think or figure things out.

152. A disadvantage was named for asking another student during a slow-paced lesson.

154. In a slower-paced lesson, it is better to help a child and give clues rather than asking another student.

The following variable showed a negative relationship with achievement:

150. An advantage was named for asking another student for the answer in a slow-paced lesson.

The rest of the interview produced variables describing teachers' strategies, curriculum, and materials. Again, the significant findings from this section did not form an easily interpreted pattern.

It is somewhat surprising that the interview yielded few meaningful relationships with achievement for this last section (strategies, curriculum, and materials). It was expected that teachers who responded in a more thoughtful or proactive manner would be the more effective teachers. It is possible that the system used to score the interview (classifying responses into bipolar categories) was not fine-grained enough to detect subtle but important differences. This was probably compounded by the fact that the responses that were scored were handwritten by the interviewers while talking with the teacher. The interviewers were abstracting the content of the teacher's answer in order to quickly write down the important points, but they may have been leaving out some important details. At any rate, this approach

does not seem to be a useful one for uncovering important relationships with achievement. However, the main purpose of the interview was not to do this, but to gather information about the teacher's use of the instructional model. Accordingly, the sections of the interview that were directly keyed to the mode yielded more meaningful data.

#### Relationships between Teachers' Self-ratings and Observed Behaviors

In order to confirm the validity of the teachers' self-ratings of frequency of use, observational variables measuring implementation of the principles were compared to each teacher's ratings of her implementation. The pairs of scores were correlated with each other to determine how closely related were the teachers' perceptions of their behavior and the actual behavior.

Thirty combinations of ratings and observational variables are listed in Table 3. Although it was expected that all of these would be related to some extent (because they were selected on that basis), only 12 of the 30 yielded significant correlations at  $p \leq .05$ .

Listed below are those principles from the instructional model for which some significant relationships were found (i.e., the teachers' ratings corresponded to their actual behavior):

1. Use a standard signal as an attention-getter to begin a lesson (Interview variable 2).

2. Seat students in the reading group with their backs to the rest of the class (Interview variable 3).

5. Have students repeat new words before they are expected to use them in the lesson (Interview variable 7).

7. Work with one student at a time, minimizing group responses (Interview variable 9).

8. Use ordered turns to select students to answer (Interview variable 10).

10. Minimize use of volunteers (Interview variables 11-13).

17-19. Student errors should be followed by sustaining feedback or by the teacher giving the student the answer, not by asking another student for the answer (Interview variables 22-24).

Those principles for which no significant relationships were found (i.e., the teachers' ratings did not predict corresponding behavior) were:

3. Use an overview to begin the lesson (Interview variable 5).

4. Present new words at the beginning of the lesson, rather than during it (Interview variable 6).

6. Present new activities with a detailed explanation (Interview variable 6).

9. Occasionally, to maintain attention, ask a second student to comment on the answer given by the first student (Interview variable 14).

20. Make sure all students in the group heard and understood correct answers (Interview variable 25).

21. Specify desirable behaviors when praising (Interview variable 26).

22. Specify desirable behaviors when criticizing (Interview variable 25).

For the most part, the principles that showed stronger relationships between self-ratings and observed behaviors were also those principles for which a stronger treatment effect was evident (i.e., the treatment teachers' behaviors were significantly different from the control teachers.) These principles described fairly specific behaviors involving interactions with single students (such as selecting them to answer and responding to student answers with feedback.)

Tests were performed for interactions with treatment group membership to determine if relationships between self-ratings and behavior were stronger in the treatment group than in the control group. (We hypothesized that the treatment teachers would have been more aware of their behaviors in these areas, since they had been asked to perform in specific ways.) However, no significant interactions were detected. Of course, with only ten teachers in each group, the test for interaction was very weak. In future studies where teachers' behaviors are influenced by provision of information and suggestions for instructional strategies, it would be interesting to determine if teachers in a treatment group become more aware of their own teaching behaviors.

#### DISCUSSION

The interview data did not yield very much additional information to that obtained by analyses of the observational data. It may be that the approach used to record and then score the teachers' responses forced so much generalization that meaningful details were lost. However, many of the significant results for variables derived directly from the treatment formed easily interpreted patterns that supported analyses of the observational data.

Probably the most valuable results of the interview data were from the teachers' self-ratings. Although the correlations with actual behavior were not as high as expected, this may have been due in part to a lack of exact matching of measures. That is, the observational variable did not exactly reflect the rating scale, although each was based on the same principle. This reflects more basic questions when evaluating any effort at translating advice into practice and then evaluating the procedure: What are the best ways (i.e., most valid and most reliable) to measure the behaviors on which you are focusing, and how can measures from different sources be equated?

Despite the lower than expected rate of significant findings, the results

of the interview data do support the following conclusions:

1. If the behaviors are defined specifically enough, teachers are fairly accurate in rating their own behaviors.

2. Teachers' behaviors and attitudes (at least as reflected in interview responses) can be influenced by a minimal treatment such as was given in this study. The treatment teachers' explanations for and opinions of strategies were more likely than the control teachers' to correspond to the information they had been given at the beginning of the year.

Mitman (Note 2) reports interview data from a similar study in which teachers were given a treatment based on earlier research, and their behaviors and student achievement were measured (conducted by the Program for Teaching Effectiveness at Stanford). In the interview, the teachers were asked to describe changes in their own teaching behavior as a result of the treatment. The teachers in the treatment group reported "dramatic increases" in the use of the prescribed behaviors in each of three major areas, but the observational data did not support this. This suggested to the author that the self-report data had little validity. This is in contrast to the results reported from the First-grade Study, where teacher's self-reports of use did correspond to at least some of the observational measures. Perhaps the First-grade Study interview was more specific about components of the treatment. In Mitman's analyses, results are reported only for the three major clusters of treatment principles, not for the separate principles. For other areas of teaching, however, Mitman found that the teachers' reports were more accurate, and she suggested that the teachers' answers about the treatment may have been affected by a strong response bias. This bias apparently was not as strong with the First-grade Study data, perhaps because the interview did not focus on the treatment process per se, but rather on the

specific behaviors included in the treatment.

In Mitman's data, none of the interview variables correlated meaningfully with residualized student achievement outcomes, a finding that is comparable to the data reported from the First-grade Study.

Mitman did not compare the responses of the teachers in the treatment and control groups, so no comparison with these First-grade analyses can be made.

An additional area was probed by Mitman but was not included in the First-grade Study interview: the teachers' opinions of the training process. The teachers' responses to questions about the utility of two treatment modes and the difficulties of implementing the treatment due to institutional factors provided important information for other researchers planning a comparable experimental study in classrooms.

In future efforts such as the First-grade Reading Group Study, where teachers are given research-based information and changes in their behavior are monitored through the year, it would be valuable to do a more thorough and precise job of assessing their attitudes toward the content and process of the treatment. If substantial changes in teaching practices are the goal of such a study (at least, for part of a sample of teachers, since many teachers do not need to make drastic changes), then both attitudes and behaviors must be considered.

## Reference Notes

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Table 1

Significant Results of Comparison of Mean Scores on Interview Responses  
of Treatment and Control Groups

Interview Question <sup>a</sup>	Var. No.	Interview Response <sup>b</sup>	F	P	Control Group		Treatment- Observed Group		Treatment- Unobserved Group	
					<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>
<b>Self-ratings</b>										
3	3	Children in group with backs to class (self rating)	4.03	.03	2.10	.99	3.50	1.27	3.29	1.25
5	5	Tells children what will be covered in group (self rating)	5.36	.01	2.30	1.16	2.90	.74	3.71	.49
10	10	Calls on children in order (self rating)	6.65	.01	2.10	1.29	3.80	.42	2.00	1.73
12	12	Choose volunteers for reading turns (self rating)	2.61	.09	1.70	1.06	.80	.79	1.43	.79
15	15	Ignores call outs or reminds child to wait (self rating)	5.09	.01	2.60	1.07	3.60	.52	3.57	.53
21	21	In drills, if child does not know the answer, teacher asks other (self rating)	8.35	.00 <sup>c</sup>	2.90	.74	1.50	.71	2.57	.98

Table 1 (cont.)

Interview Question <sup>a</sup>	Var. No.	Interview Response <sup>b</sup>	F	P	Control Group		Treatment-Observed Group		Treatment-Unobserved Group	
					<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>
24	24	In slow lessons, if child doesn't know answer, teacher asks other (self rating)	5.92	.01	2.80	.79	1.40	.97	1.71	1.11
25	25	Teacher repeats student's correct answer (self rating)	2.48	.10	3.00	.94	2.70	.82	1.86	1.46
Teachers' opinions of instructional model										
1	50	Standard signal for group transitions adds in class control	3.25	.05	.30	.48	.80	.42	.71	.49
2	54	Some disadvantage noted for standard signal to get attention in group	5.39	.01	.50	.53	.30	.48	1.00	0.00
2	56	Standard signal to get attention unnecessary as student should know to pay attention	23.41	.00	0.00	0.00	.10	.32	.86	.38
3	58	When children sit with backs to class, group isn't distracted by class	6.36	.01	.40	.52	1.00	0.00	.43	.53

Table 1 (cont.)

Interview Question <sup>a</sup>	Var. No.	Interview Responses <sup>b</sup>	F	p	Control Group		Treatment-Observed Group		Treatment-Unobserved Group	
					<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>
5	65	It is unnecessary or undesirable for teacher to tell students what will be covered	4.00	.03	.60	.52	.30	.48	0.00	0.00
7	72	Academic advantages result when children repeat new words	3.10	.06	.40	.52	.30	.48	.86	.38
7	74	It is time-consuming, boring, and unnecessary for students to repeat new words	4.31	.02	.30	.48	0.00	0.00	.57	.53
16	116	Better to split group permanently or tutor than dismiss rapid learners	2.76	.08	.10	.32	.20	.42	.57	.53
19	130	In drills, giving the answer keeps lesson pace quick	2.62	.09	.10	.32	.50	.53	.14	.38
19-24	160	Use of teaching techniques depends on academic/intellectual kid traits	9.45	.00	.20	.42	.10	.32	.86	.38
19-24	162	Use of teaching technique depends on child, lesson, or question	2.93	.07	.60	.52	.30	.48	.86	.38

Table 1 (cont.)

Interview Question <sup>a</sup>	Var. No.	Interview Response <sup>b</sup>	F	p	Control Group		Treatment-Observed Group		Treatment-Unobserved Group	
					<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>
25	168	Better for student to repeat correct answer than teacher	3.07	.06	.10	.32	.60	.52	.43	.53
26	169	When teacher uses specific praise, student knows why he/she was praised	2.78	.08	.20	.42	.70	.48	.43	.53
		<b>Teachers' descriptions of strategies, curriculum, and materials</b>								
74	35	Teacher rating of importance of group discussions with reader	2.82	.08	2.00	1.12	3.00	.82	3.00	1.15
76	37	Teacher rating of importance of games with reader	3.05	.06	2.70	1.42	1.60	1.17	3.00	1.15
80	40	Teacher rating of importance of silent reading with pre-primer	3.13	.06	2.22	1.72	3.60	.70	2.00	1.91
80	41	Teacher rating of importance of silent reading with reader	3.49	.05	2.67	1.50	4.00	0.00	3.00	1.41

Table 1 (cont.)

Interview Question <sup>a</sup>	Var. No.	Interview Response <sup>b</sup>	F	P	Control Group		Treatment-Observed Group		Treatment-Unobserved Group	
					<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>
39	178	Teacher likes Economy's phonetics/skills approach	2.62	.09	.10	.32	.50	.53	.14	.38
41	186	Supplementary readers were used at home	4.97	.02	.90	.32	.30	.48	.43	.53
43	192	Listening centers were used more than once weekly	3.23	.06	.60	.52	.10	.32	.29	.49
46	199	Other reading activities were provided three times weekly or less.	2.69	.09	.40	.52	.50	.53	0.00	0.00
50	207	If student can't answer comp question: student rereads with special instructions	5.28	.01	.20	.42	.80	.42	.29	.49
54,55	221	Whether teacher gives phonics or context clues depends on word	2.82	.08	.50	.53	.70	.48	.14	.38
57	228	Teacher hardly ever asks other student for answer--doesn't like to	5.65	.01	0.00	0.00	.60	.52	.29	.49

Table 1 (cont.)

Interview Question <sup>a</sup>	Var. No.	Interview Response <sup>b</sup>	F	P	Control Group		Treatment-Observed Group		Treatment-Unobserved Group	
					X	SD	X	SD	X	SD
59	235	Form reading groups at beginning of year by teacher-made tests	3.92	.03	.30	.48	0.00	0.00	.57	.53
63	244	Teacher time is divided equally among groups	5.38	.01	.70	.48	.40	.52	0.00	0.00
64	246	Call groups in same order every day	2.93	.07	.40	.52	.70	.48	.14	.38
66	253	Teacher states rules about not interrupting reading group ahead of time	3.82	.04	.30	.48	.30	.48	.86	.38
77	269	Games keep students interested, motivated	4.26	.03	.30	.48	.10	.32	.71	.49
83	280	Reread when story is difficult in relation to the student's abilities	7.10	.00	.60	.52	0.00	0.00	.14	.38
84	283	To motivate student provide rewards, checks, praise, preferred activities	3.25	.05	.70	.48	.20	.42	.29	.49
84	287	A cognitive approach of responsibility and challenge can motivate	3.47	.05	.30	.48	.70	.48	.14	.38

Table 1 (cont.)

Interview Question <sup>a</sup>	Var. No.	Interview Response <sup>b</sup>	F	p	Control Group		Treatment-Observed Group		Treatment-Unobserved Group	
					<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>	<u>X</u>	<u>SD</u>
85	289	To control classroom during reading, set rules and discuss	3.10	.06	.40	.52	.30	.48	.86	.38
85	291	To control classroom during reading, punish bad behavior, unfinished work	2.69	.09	.30	.48	.50	.53	0.00	0.00
86	294	Personal involvement is beneficial for teaching slow students to read	4.61	.02	.56	.53	0.00	0.00	.29	.49
91	319	Basals give student structure, continuity	2.69	.09	.50	.53	.30	.48	0.00	0.00
91	321	Basals are easier for new teachers, give something to follow	3.07	.06	.10	.32	.60	.52	.43	.53
93	327	Recommend changes in basal series to create a higher interest level	2.69	.09	.50	.53	.30	.48	0.00	0.00

<sup>a</sup>See Appendix A for the questions asked during the interview.

<sup>b</sup>These categories were used to score the responses of individual teachers. If a teacher's answer to a given question was judged to reflect a general category associated with that question, then a score of 1 was assigned to the teacher for that response category. If the answer did not reflect the general response, a 0 was assigned.



Table 1 (cont.)

<sup>c</sup>Significant paired comparison: Control > Treatment-observed

Table 2

Interview Variables That Showed a Significant Relationship  
with Adjusted Metropolitan Total Reading Achievement

(N = 27)

Interview Question	Var. No.	Interview Response <sup>b</sup>	Type of Relationship			p
			Linear	Interactive High	Low	
<b>Self-Ratings (5-point scales)</b>						
8	8	Present new activities with a step-by-step explanation	+			.02
15	15	Ignore call outs or remind students to wait their turns		+	0	.03
16	16	Dismiss rapid learners from the group in order to spend more time with slower learners on that lesson's objectives	+			.02
21	21	In drills, if a child does not know the answer, the teacher asks another child	-			.02
24	24	In slow lessons, if a child does not know the answer, the teacher asks another child				.01
34	34	Rating of importance of group discussions with a preprimer level group		+	0	.03
<b>Teacher Opinions of Instructional Model</b>						
9	78	There are academic advantages to working with one child at a time		+	-	.02
16	112	There are advantages for lower ability students in dismissing rapid learners from the group	+			.04
18	125	Tutoring students is beneficial because they learn from individualization and practice		+	-	.04

Table 2 (cont.)

Interview Var. Question No.	Interview Response	Type of Relationship			p
		Linear	Interactive High	Low	
19	132				
	In drills, giving students the answer prevents them from having to think and figure it out (a disadvantage)	+			.04
24	150				
	In a slow lesson, advantage named in asking other students for the answer after an error	-			.03
24	152				
	In slow lessons, a disadvantage was named for asking another student for the answer after an error	+			.02
<b>Teachers' Descriptions of Curriculum, Materials, Strategies</b>					
43	193				
	The time spent in the listening center varies depending on the students' needs	+			.03
52	214				
	When a child is afraid to try a word, the teacher gives clues	-			.03
59	235				
	Reading groups are formed at the beginning of the year on the basis of teacher-made tests		-	+	.05
69	258				
	Word recognition drill is less important by the time students reach the reader level because they have decoding skills		+	-	.02
81	277				
	The importance of silent reading depends on the ability of the student		+	0	.04
84	283				
	To motivate students, the teachers should provide rewards, checks, other preferred activities	-			.03
85	293				
	Number of suggestions made for controlling the class during reading		+	-	.05
86	296				
	Rewards, points, progress charts, and praise are beneficial in teaching slow students	-			.01
87	306				
	In teaching accelerated readers, one should encourage a lot of reading	-			.03

Table 2 (cont.)

Interview Question	Var. No.	Interview Response	Type of Relationship			p
			Linear	Interactive High	Low	
89	314	Reading groups are not individualized enough		+	-	.01
91	317	Basal readers allow for systematic coverage of skills in the proper sequence		+	0	.03
95	337	Teacher recommends to next-year's teacher to allow lower ability students to work at their own level		+	-	.04
103	346	Teacher had additional comments and suggestions about teaching at the end of the interview				.04

Note. When the linear (common slopes) test was significant, the slope of the line is given under the heading "linear." If the test for interaction with entering ability was significant, the slopes for both the higher-ability and lower-ability classes are reported. When the interaction test was significant, the separate slopes are reported if they showed at least .40 units of change in the criterion for each unit of change in the predictor.

<sup>a</sup>See Appendix A for questions asked during the interview.

<sup>b</sup>These categories were used to score the responses of individual teachers. If a teacher's answer to a given question was judged to reflect a general category associated with that question, then a score of 1 was assigned to the teacher for that response category. If the answer did not reflect the general response, a 0 was assigned.

Table 3

Relationships between Teachers' Self Ratings  
and Observed Behaviors

Var. No.	Interview Response <sup>a</sup>	Prin- ciple	$\bar{X}$	SD	Observation Variables <sup>b</sup>	$\bar{X}$	SD	r	P
2.	Uses standard signal to call students' attention in group (self rating)	1	2.45	1.07	Average rating: % students attending to signal at beginning of lesson (5=100%, 1=0%)	3.73	.19	-.15	ns
					Percent of lessons in which an attention getter was used to begin the lesson	.06	.07	.47	.03
3.	Seats children in group with backs to class (self rating)	2	2.80	1.29	Average rating: student seating (5=most appropriate, 1=least appropriate)	2.45	.72	.49	.03
5.	Tells children what will be covered in group (self rating)	3	2.60	.97	Percent of lessons in which there was no overview to to start the lesson	.58	.20	.00	ns
6.	Presents new words at beginning, rather than during, the lesson	4	3.00	1.14	Percent of lessons in which new words were given at the beginning, rather than during, the lesson	.73	.26	-.11	ns
7.	Has children repeat new words (self rating)	5	2.75	1.22	Percent of new words that were repeated by the students before the lesson started	.37	.31	.49	.03

Table 3 (cont.)

Var. No.	Interview Response <sup>a</sup>	Principle	$\bar{X}$	SD	Observation Variable <sup>b</sup>	$\bar{X}$	SD	r	p
8.	Explains new activities step-by-step (self rating)	6	3.35	.65	Percent of activities that were introduced by a teacher demonstration	.92	.11	-.08	ns
					Average rating: sufficiency of demonstration (5=most sufficient, 1=least sufficient)	2.67	.54	-.12	ns
9.	Works with one child at a time (self rating)	7	3.00	.77	Rate (per minute of lesson time) of choral responses	.14	.10	-.46	.04
					Rate (per minute of lesson time) of group call outs	.20	.14	-.72	<.01
					Rate (per minute of lesson time) of individual response opportunities	2.03	.42	.24	ns
10.	Calls on children in order (self rating)	8	2.95	1.24	Percent of total selections that were ordered turns	.48	.29	.70	<.01
					Percent of selections for single questions that were ordered	.46	.28	.61	<.01
					Percent of selections for reading turns that were ordered.	.57	.33	.77	<.01
11.	Chooses volunteers for academic questions (self rating)	10	2.65	.96	Percent of selections for single questions that were given to volunteers	.15	.11	-.15	ns
12.	Chooses volunteers for reading turns (self rating)	10	1.25	.99	Percent of selections for reading turns that were given to volunteers	.10	.11	.55	.01

Table 3 (cont.)

Var. No.	Interview Response <sup>a</sup>	Principle	$\bar{X}$	SD	Observation Variable <sup>b</sup>	$\bar{X}$	SD	r	p
13.	Chooses volunteers for personal experiences (self rating)	10	2.55	.97	Percent of selections for personal questions that were given to volunteers	.26	.22	-.19	ns
14.	Asks child to comment on another's response (self rating)	9	2.30	.78	Percent of questions that were requests for comments about another student's answer	.00	.00	-.19	ns
22.	In slow lessons, if child doesn't know answer, teacher gives answer (self rating)	17-19	2.25	1.13	Percent of total incorrect answers followed by the teacher giving the answer to the student	.35	.14	.24	ns
					Percent of incorrect answers in reading turns followed by teacher giving the answer to student	.54	.20	.07	ns
					Percent of incorrect answers to single questions followed by teacher giving the answer to the student	.17	.05	-.45	.04
23.	In slow lessons, if child doesn't know answer, teacher gives clue (self rating)	17-19	3.15	.79	Percent of total incorrect answers followed by clue feedback	.24	.09	-.24	ns
					Percent of incorrect answers in reading turns followed by clue feedback	.18	.10	-.53	.02
					Percent of incorrect answers to single questions followed by clue feedback	.30	.11	.21	ns

Table 3 (cont.)

Var. No.	Interview Response <sup>a</sup>	Prin- ciple	$\bar{X}$	SD	Observation Variable <sup>b</sup>	$\bar{X}$	SD	r	p
24.	In slow lessons, if child doesn't know answer, teacher asks other (self rating)	17-19	2.10	1.09	Percent of total incorrect answers followed by the teacher asking another student	.11	.07	.26	ns
					Percent of incorrect answers to single questions followed by the teacher asking another student	.21	.12	.43	.06
25.	Teacher repeats students correct answers (self rating)	20	2.85	.85	Percent of answers followed by repetition of the answer	.22	.08	.27	ns
26.	When praising, teacher specifies what was good (self rating)	21	3.20	.81	Percent of total praise that was specific	.04	.04	-.35	ns
					Percent of behavior praise that was specific	.39	.39	.08	ns
27.	In criticism, teacher specifies what should have been done (self rating)	22	2.95	1.00	Percent of behavior contacts that were specific	.09	.06	-.36	ns

<sup>a</sup>These categories were used to score the responses of individual teachers. If a teacher's answer to a given question was judged to reflect a general category associated with that question, then a score of 1 was assigned to the teacher for that response category. If the answer did not reflect the general response, a 0 was assigned.

<sup>b</sup>Variables were derived from observation system used to record implementation of the treatment.



## Appendix A

### The Teacher Interview

#### I. Self-ratings (The teachers rated their frequency of use of each suggestion from the instructional model.)

1. Use the same, standard signal every day, delivered to the group as a whole, to call the children to the group.
2. Use the same, standard signal every day to call the children to attention once they're in the group.
3. Seat the children in the group with their backs to the rest of the class.
4. Seat yourself to face the group and the rest of the class.
5. At the beginning of the lesson, tell the children in a sentence or two, what will be covered during the group.
6. Present new words at the beginning of the lesson (rather than waiting until the children come to them in the reading).
7. Have all of the children repeat new words after they have been presented.
8. Each new activity is explained in a step-by-step fashion, asking questions at each step to make sure that the children understand.
9. Work with one child at a time, minimizing choral responses.
10. Call on children in order around the group rather than randomly to read or answer questions.
11. Choose volunteers to answer academic questions.
12. Choose volunteers for reading turns.
13. Choose volunteers to give personal experiences or opinions.
14. Occasionally ask a child to comment on or add to another child's response.
15. When a child calls out an answer out of turn, ignore the answer or remind the child to wait her/his turn.
16. On a given day, if some children learn the lesson faster than others, dismiss them from the group early so you can work more closely with the others.
17. Choose a child who has already achieved certain objectives and question her/him in front of the group so that the students can serve as a model for the other children.

18. Arrange for tutorial help for students who do not meet the lesson objectives within the reading group.
19. In drill, when a child doesn't respond to a question or answers incorrectly, give the answer.
20. In a drill, when a child doesn't respond to a question or answers incorrectly, give a clue.
21. In a drill, when a child doesn't respond to a question or answers incorrectly, ask another child.
22. In a slower lesson, when a child doesn't respond to a question or responds incorrectly, give the answer.
23. In a slower lesson, when a child doesn't respond to a question or responds incorrectly, give a clue.
24. In a slower lesson, when a child doesn't respond to a question or responds incorrectly, ask another child.
25. After a child responds correctly, repeat the answers.
26. When you praise a child for something, specify what was good.
27. When you criticize a child for something, specify what should have been done instead.

## II. Teachers' opinions of the instructional model

After the self-ratings were completed, the teacher was asked for her opinion of each suggestion and its advantages and disadvantages.

## III. Teachers' descriptions of strategies, curriculum, and materials

39. How did you select the basal series that you used?
40. Do you have adequate access to these materials (basal readers, workbooks, etc.)? That is, are there enough books for every child to use whenever desirable, or are there constraints due to short supply, teaming, scheduling, etc.?

What reading activities occur besides morning seatwork and reading group activities? For each activity, how often does it occur, and does everyone in the class participate?

41. \_\_\_ supplementary readers and other books
42. \_\_\_ library activities focusing on reading
43. \_\_\_ listening center

44. \_\_\_\_\_ afternoon seatwork (reading)
45. \_\_\_\_\_ afternoon reading group
46. \_\_\_\_\_ other
47. (If supplementary readers mentioned above) Are the supplementary readers systematically assigned? That is, are the children expected to read them as part of an assignment, or are they given free choice to read?
48. (If supplementary readers mentioned above) What records are kept, if any?
49. (If library activities mentioned above) What records are kept of children's library reading, if any?

The next eight questions deal with situations that teachers often encounter when questioning students in the reading group.

50. What do you do with a child who has just read a page in the basal to you, but who cannot correctly answer any comprehension questions?
51. How do you encourage a child who reads one word at a time in a monotone to read in phrases and with expression?
52. If a child is afraid to attack any unknown words lest he or she gets them wrong, how do you deal with this fear? This is the child who will not attempt a word until he or she is certain it will be correct.
53. What do you do with a child who makes a habit of wildly and impulsely guessing at unknown words?

When a child cannot read a word during oral reading, you may help through phonics or context clues, you may tell the word, or you may call on another child to give the word. We will ask which you would use and when.

54. When should phonics clues be used?
55. When should context clues be used?
56. When should the word be given to the child?
57. When should another child be called upon?
58. How do you feel about pointing or the use of markers in first grade reading?
59. How do you form reading groups at the beginning of the year?
60. How and why do you change the groups after they are formed?

61. How do you determine the size of your reading groups?
62. Is there an ideal size with which you think you can function best?
63. What determines the amount of time spent with each group?
64. Do you call for your groups in any particular order each day or does the group order vary?
65. What determines the order in which the groups are taught?
66. How do you deal with children working in the classroom who ask you for help while you are teaching a reading group?
67. How do you deal with disturbances in the classroom while you are teaching a reading group?

I am going to name several activities which can occur in reading groups. Rate the importance of each activity on a scale of 1 to 5 with 1 meaning "of little importance" and 5 meaning "of much importance." Rate the importance of each activity at each of two different points in the progress of the group: the first pre-primer and the first reader. Why do you feel this way?

	<u>First pre-primer</u>					<u>First reader</u>				
68. Word Recognition Drill	1	2	3	4	5	1	2	3	4	5
69. Why?										
70. Comprehension questions	1	2	3	4	5	1	2	3	4	5
71. Why?										
72. <u>Workbook/worksheets done in group</u>	1	2	3	4	5	1	2	3	4	5
73. Why?										
74. Group discussions	1	2	3	4	5	1	2	3	4	5
75. Why?										
76. Games	1	2	3	4	5	1	2	3	4	5
77. Why?										
78. Oral reading	1	2	3	4	5	1	2	3	4	5
79. Why?										
80. Silent reading	1	2	3	4	5	1	2	3	4	5
81. Why?										

- |                          | <u>First pre-primer</u> |   |   |   |   | <u>First reader</u> |   |   |   |   |
|--------------------------|-------------------------|---|---|---|---|---------------------|---|---|---|---|
|                          | 1                       | 2 | 3 | 4 | 5 | 1                   | 2 | 3 | 4 | 5 |
| 82. Rereading of stories |                         |   |   |   |   |                     |   |   |   |   |
| 83. Why?                 |                         |   |   |   |   |                     |   |   |   |   |

We are collecting teachers' suggestions of special tricks or techniques which they have found to be effective in particular situations.

84. Are there some specific tricks that can be use to motivate a group or a single child?
85. Are there specific tricks or techniques that you have found useful for classroom management during reading period when you are with a group and the other children are in the classroom?
86. Are there techniques that are especially appropriate and beneficial for reading groups that are having difficulty in learning to read?
87. Are there strategies that you find work best with accelerated groups of readers?

Many first graders are taught to read with a basal reading series in a reading group. We would like your opinions about the appropriateness of this approach.

88. First, what do you see as advantages of using reading groups?
89. What disadvantages are there to using reading groups?
90. Is there anything that you would like to change about or add to the use of reading groups to teach beginning reading?
91. What are the advantages of using a basal reading series?
92. What are the disadvantages of using a basal reading series?
93. Is there anything that you would like to change about or add to the basal reading series?
94. In every class, there are some children who have not learned to read by the end of the first grade. If there are such children in your class, why do you think that they have not learned to read?
95. What suggestions would you make to next year's teacher of these children?

Rank the following in order of importance to you as a teacher of first grade reading. (1 indicates what you find most important.)

96.  The child acquires an appreciation of and love for reading.
97.  The child acquires the basic skills necessary to becoming an independent reader.
98.  The child develops good work habits including the ability to work cooperatively with others.
99.  The child acquires a work-orientation and motivation that enables him or her to succeed in later schooling and in life.

IV. Personal and miscellaneous

100. Did you have a student teacher or observer who taught reading to any of your class? Which groups did he/she work with, when, and for how long?
101. How long have you been teaching?
- total.  
 first grade
102. What are your professional plans?
103. Are there other aspects of teaching first grade that you find important, but that we have not mentioned? What other suggestions could you make to other first grade teachers?